

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A36EU
Revision 3
APEX Aircraft
CAP 10 B

August 14, 2002

TYPE CERTIFICATE DATA SHEET No. A36EU

This data sheet which is a part of Type Certificate No. A36EU, prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: APEX Aircraft
9, rue de l'Aviation
Darois, France

Type Certificate Holder Record. AVIONS MUDRY et CIE was previous holder of A36EU. Effective July 18, 2002, APEX became TC holder.

I - Model CAP 10 B (Utility and Acrobatic Category), approved June 13, 1974

Engine Lycoming IO360 B2F with "Christen" inverted oil system, or Lycoming AEIO360-B2F fuel injected.

Fuel 91/96 minimum aviation grade gasoline.

Engine limits For all operations, 2700 r.p.m. (180 HP)

Propeller Hoffman HO 29-180-170
EVRA CAP 3.180.170.H5.F.

Propeller Limits (Utility and Acrobatic Categories)
Static r.p.m. at maximum permissible throttle setting 2200 rpm
Diameter 70.9 inches. No cutoff permitted.

Airspeed limits		<u>Utility Category</u>	<u>Acrobatic Category</u>
V _{NE} Never exceed		211 m.p.h. (183 kts)	211 m.p.h. (183 kts)
V _C Design cruising		186 m.p.h. (162 kts)	186 m.p.h. (162 kts)
V _A Maneuvering		124 m.p.h. (108 kts)	146 m.p.h. (127 kts)
V _F Flaps extended		99 m.p.h. (86 kts)	99 m.p.h. (86 kts)

See NOTE 3 for acrobatic maneuvers

Flight Maneuvering Lead Factor (G's)	Flaps up	+4.4	+6.0
		-1.8	-4.5
	Flaps down	+2.0	+2.0
		-1.8	-2.0

C.G. range	Forward limit	+10.6 in. (18%)	10.6 in. (18%)
	Aft limit	+17.7 in. (30%)	15.3 in. (26%)

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Datum	Wing leading edge at 51 in. from airplane centerline. (Length of wing chord at datum 59 inches).		
Leveling Means	Longitudinal:	Left canopy rail horizontal.	
	Transverse:	Top of bulkhead #2.	
Empty weight C.G. range	None.		
Maximum weight	Takeoff	1830 lb.	1675 lb.
	Landing	1763 lb.	1675 lb.
No. of seats		2 at +23.6 in.	2 at +23.6 in.
Maximum baggage		110 lb. at +55.1	None
Fuel capacity	Front tank (total)	19.8 (at -6.7 in.)	19.8 (at -6.7 in.)
	(usable)	19.0	19.0
	Rear tank (total)	20.8 (at +55.1 in.)	0
	(usable)	20.6	0
	Rear tank must be empty for operations in acrobatic category.		
	Minimum fuel quantity for acrobatics: 2.6 U.S.gal.		
Oil capacity	Maximum capacity:	8 quarts	
	Minimum:	2 quarts	
	Maximum oil quantity for acrobatics: 6 quarts		
Control surface movements	Aileron	Up 25° ± 2	Down 15° ± 2
	Elevator	Up 25° ± 2	Down 25° ± 2
	Elevator trim tab	Up 24° ± 2	Down 14° ± 2
	Rudder	Right 18° ± 2	Left 18° ± 2
	Wing flaps	Takeoff 15° ± 2	Landing 40° ± 2
Serial Nos. eligible	A French "Certificat de Navigabilite pour Exportation" endorsed as noted under "Import Requirements", must be submitted for each individual aircraft for which application for U.S. certification is made.		
Import Requirements	An FAA Standard Airworthiness Certificate may be issued on the basis of a French "Certificat de Navigabilite pour Exportation" signed by a representative of the Seretariat a l'Aviation Civile (S.G.A.C.) of France, containing the following statement: "The airplane covered by this Certificate has been examined, tested, and found to conform to the type design approved under Type Certificate No. A36EU, and to be in condition for safe operation".		
Certification Basis	FAR 21.29: French AIR 2052 with Amendments Dated October 7, 1965 (equivalent to FAR 23 effective February 1, 1965); Type Certificate No. A36EU issued June 13, 1974.		
	Date of Application for type certification: April 26, 1973.		

Equipment The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. In addition the following is required:
Avions MUDRY flight manual FAA approved June 28, 1993.

NOTES.

NOTE 1. Current weight and balance report, including list of equipment in certificated empty weight and loading instructions if applicable, must be in each aircraft at the time of original certification. Empty weight must include unusable fuel of 5 lbs at (-6.7) and 2 lbs at (+55.1).

NOTE 2. In addition to the placards required in the approved Airplane Flight Manual, the following placards must be installed in the appropriate locations as indicated:

1. In full view of the pilot

Limits of Utilization

Utility Category: AU W takeoff 1830 lb.
AU W landing 1763 lb.
Load factors +4.4, -1.8

No acrobatic maneuvers, including spins, approved.

Acrobatic Category: AU W takeoff and landing 1675 lb.
Load factors +6, -4.5

No Smoking

No objects permitted on floor.

V_a = 146 m.p.h.

2. In the Baggage Compartment

Baggage "U" Category - 110 lb. Max (See Weight and Balance Data)
"A" Category - No baggage permitted.

3. Approved Acrobatic Maneuvers:

Minimum Entry Speed

	<u>One Pilot</u>	<u>Two Pilots</u>
Loop	138 mph (120 kts)	144 mph (125 kts)
Half cuban eight	132 mph (115 kts)	138 mph (120 kts)
Roll	132 mph (120 kts)	144 mph (125 kts)
Positive snap roll	92-109 mph (80-95 kts)	99-109 mph (80-95 kts)
Negative snap roll	92-121 mph (80-105 kts)	92-121 mph (80-105 kts)
Inverted loop	155 mph (135 kts)	167 mph (145 kts)
Hammerhead	127 mph (110 kts)	127 mph (110 kts)

NOTE 3. Airspeed indicator markings (Acrobatic Category)

Radial red line	211 m.p.h.	(185 kts)
Yellow arc	186 to 211 m.p.h.	(162 to 183 kts)
Green arc	62 to 186 m.p.h.	(54 to 162 kts)
White arc	53 to 100 m.p.h.	(46 to 86 kts)
Radial yellow line	146 m.p.h.	(126 kts)

- NOTE 4. Cylinder head temp.
Gauge marking red line at 500°F (260°C)
Green arc 150°F (66°C to 204°C)
- Oil temperature gauge marking
Red line at 244° F
Green arc 104°F to 244°F (40°C to 118°C)
- NOTE 5. Oil pressure gauge marking
Red line at 100 p.s.i. (7.03 bars)
Green arc 60 to 90 p.s.i. (4.22 to 6.33 bars)
Yellow arc 26 to 62 p.s.i. (1.76 to 4.22 bars)
- NOTE 6. Tachometer marking
Green arc 500 r.p.m. to 2700 r.p.m.
Radial red line at 2700 r.p.m.
- NOTE 7. G. Meter marking
Green arc -4.5 to +6
Red line at -4.5 and +6

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